Claims.

1. Method for application layer authentication of
    subscribers connected to the authenticating network
    domain by a 2G or 2.5G GPRS core network or a 3G UMTS
    network, characterised by using data which are assembled
    by the network layer during establishment of a PDP
    context in GPRS networks.

2. Method according to claim 1, comprising the step that
    during PDP context establishment the Serving GPRS Support
    Node (SGSN) is authenticating the subscriber using the
    A3/A8 algorithm based on the end devices SIM card.

3. Method according to any preceding claim, comprising the
    step that a Gateway GPRS Support Node (1) receives a
    context creation request and queries a registration
    server (2) to get an IP address assigned for the
    particular PDP context, and within the context the
    registration server 2 receives the MSISDN and/or the IMSI
    of the subscriber and stores for each PDP context a pair
    of IP address and IMSI/MSISDN in a session database (3).

4. Method according to any preceding claim, comprising the
    step that a proxy server (5) is provided which checks
    IMSI/MSISDN from a radius server (2) database (3) and
    IMSI/MSISDN from application domain database (4) for
    match.

5. Method according to any preceding claim, comprising the
    step that if the IMSI/MSISDN pairs are matching, the
    radius server (5) checks the subscribers IP address in

the IP network layer for match with the IP address
assigned by the Radius server (3).

6. Method according to any preceding claim, comprising the
step that the proxy server (5) parses the application
layer for IP addresses given in the headers of
registration messages and checks for match with the IP
address which was already checked for match with the IP
address assigned by the radius server (2).

7. Method according to any preceding claim, comprising the
step that in all subsequent messages arriving at the
proxy server (5), it checks for match of IP address in
the IP packet overhead field for source address with that
in the application layer protocol header fields and
verifies the matching pairs against the IP address
assigned by the Radius server (2).

8. Method according to any preceding claim, that a routing
module (7) is provided which is the standard entry point
for all messages and decides by evaluation of PrivID
which network node will handle the message.

9. System of units in a mobile telecommunication network,
characterised that at least a first authentication unit
(2) is connected via a data line to a second unit (5; 6)
which assembles data according to the method of claim 1.

10. System according to claim 9, wherein the first unit
comprises a registration server (2).

11. System according to claim 9 or 10, wherein the first unit
(2) is connected to a session database (3).

12. System according to any of claims 9 to 11, wherein the second unit comprises a proxy server (5).

5   13. System according to any of claims 9 to 12, wherein the second unit comprises a Proxy Call State Control Function (6).

14. System according to any of claims 9 to 13, wherein the
10   second unit (5; 6) is connected to a subscriber database (4).

15. System according to any of claims 9 to 14, wherein a routing module (7) is provided decides by evaluation of
15   PrivID which network node will handle the message.